

## New Asilidae from México in the Genera *Itolia* and *Sphageus*<sup>1</sup> (Diptera)

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The genus *Itolia* Wilcox has been known only from southern Arizona and southern California. Two new Mexican species in *Itolia* extend the range approximately 1,400 miles southeastward to the State of Puebla, México.

The monotypic *Sphageus* Loew was described from Cuba. Two new species of *Sphageus* from México represent the first continental records for this genus.

### ITOLIA Wilcox

*Itolia* Wilcox, 1936, The Pan-Pac. Entomol., 12: 201.

*Itolia*; Wilcox, 1948, *Ibid.*, 24: 191-193.

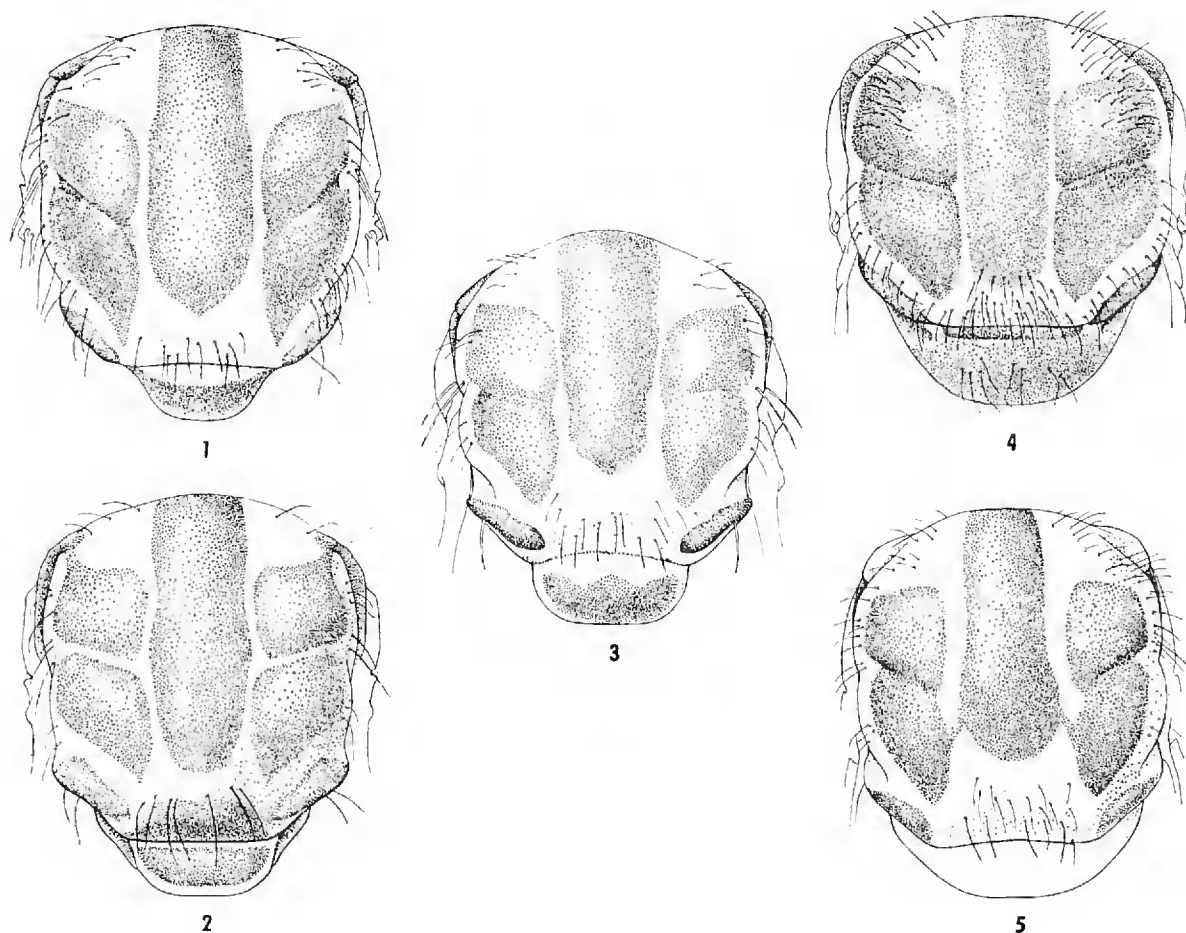
The genera *Itolia* Wilcox and *Townsendia* Williston differ from other North American genera of Dasypogoninae (Asilidae) in having only four posterior cells in the wing. The third posterior is closed in *Itolia*, and open in *Townsendia*. Wilcox (1936, 1948) described three species of *Itolia*; a fourth species is described herein from Sonora, and a fifth from Puebla, México.

*Itolia* is found resting on the twigs of desert shrubs when the temperatures are well above 100° F.

### KEY TO THE SPECIES OF ITOLIA

1. Scutellum densely gray tomentose; dense tomentose bands on abdominal tergites 1-4 entire, or nearly so; length 7-9 mm (California) ..... *timberlakei* Wilcox
- Scutellum tomentose either anteriorly or around the margin of the disc ..... 2
2. Legs black; abdomen yellowish red, tergites 1-3 vary from almost totally red to nearly totally black, gray tomentose bands on tergites 1-2 or on 1-3 of both sexes either entire or interrupted; length 5-9 mm (Arizona; California; Sonora) ..... *aStripes* Wilcox
- Tibiae mostly red; anterior tergites black at least dorsally ..... 3
3. Scutellum polished medially, margin brownish tomentose; posterior margins of tergites narrowly red, posterior corners narrowly brownish gray tomentose; length 7 mm (Puebla) ..... *fascia*, new species
- Anteriorly scutellum gray tomentose, polished posteriorly ..... 4
4. Abdomen with broadly interrupted gray tomentose bands on tergites 1-7 in male, 1-5 in female, sometimes band on tergite 2 entire; short pile on

<sup>1</sup> Support by NSF Grants G-13394 and GB-1267 is acknowledged.



Thoraces of *Itolia*. FIG. 1. *I. maculata* Wilcox. FIG. 2. *I. fascia*, new species. FIG. 3. *I. atripes* Wilcox. FIG. 4. *I. pilosa*, new species. FIG. 5. *I. timberlakei* Wilcox.

scutellum; length 6-7 mm (Arizona; Sonora) ..... *maculata* Wilcox  
 Abdomen shining dorsally, posterior corners of tergites 2-5 in male, 1-5 in female, narrowly gray tomentose; long whitish pile on scutellum; length 7-8 mm (Sonora) ..... *pilosa*, new species

***Itolia fascia* Martin, new species**

(Fig. 2)

*Itolia fascia* is the only species in the genus with a pale broad band across the middle of the wing.

MALE.—Length 7 mm. Head black, face below antennae, occiput along orbits, and the base of the ocellar tubercle red; face gray tomentose, lower half of the front gray tomentose, upper half polished black, thinly brown pollinose, occiput thinly gray tomentose; vestiture grayish white; antennae dark brown except tip of style red, microsegment about one-third as long as style, segment 2 subequal to the length of the style, segment 3 five times longer than segment 1.

Thorax polished black; tan tomentose, more grayish along the lateral margin, polished broad median longitudinal stripe extending to the gray tomentose meta-notal declivity, narrowly gray transverse suture across the lateral polished stripe, anterior and posterior humeri polished black; hair grayish white, weak bristles yellowish white; margins of scutellum gray tomentose, disc polished; pleura gray

tomentose, a polished black spot, very thinly brown tomentose, before wing base vestiture white.

Abdomen polished black, narrowly reddish along posterior margins of the tergites; tergites 2-5 on posterior corners grayish tomentose with some brown, very small spots on tergites 3-5; vestiture thin except first tergite with white to yellowish vestiture.

Wings with typical *Itolia* venation, hyaline apically and basally, broad pale band medially.

Legs red, femora black dorsally, narrowly reddish on dorsoapex; apical tarsal segments blackish, basal four red; vestiture white.

FEMALE.—Similar to the male, posterior corners of tergites with larger tomentose markings than male, pleura in general more thinly tomentose.

TYPE MATERIAL.—*Holotype male*, 3 MILES NORTHWEST OF PETLALCINGO, PUEBLA, MÉXICO, 3 April 1962 (F. D. Parker). Allotype female, 3 miles east of Icúzar de Matamoros, Puebla, México, 25 April 1962 (F. D. Parker, L. A. Stange). Types returned to the University of California at Davis.

### ***Itolia pilosa* Martin, new species**

(Fig. 4)

*Itolia pilosa* is closely related to *Itolia maculata* Wilcox but the tomentum on the abdomen is confined to the posterior corners of the tergites of the male. The long pale pile on the disc of the scutellum and also laterally on both the polished and tomentose areas of tergites 2-4 separate *pilosa* from *maculata* with shorter and more sparse pile on these areas.

MALE.—Length 6 mm. Head black, a red spot behind and below the ocellar tubercle; face and vertex white tomentose, occiput broadly gray tomentose, narrowly brownish along orbits; vestiture white; occipital bristles very weak; antennal segment 3 including the short style over twice as long as the two proximal segments.

Thorax polished black; light brownish tomentose triangular spots above the humeri, a narrow band of brownish gray tomentum extending along the lateral margin posteriorly from the anterior humeri and joining the posterior brownish gray patch just above the scutellum, a small brownish gray tomentose spot at the apex of the transverse suture extending posteriorly as a very narrow line; median longitudinal stripe with a median line of short hair, short pale hair covering the other areas, hair longer posteriorly; scutellum polished, narrowly gray tomentose on the anterior margin, disc with fine long pale pile; pleura light brownish gray tomentose with a polished area before the wing base, a fan of pale hair behind the polished area, vestiture white.

Abdomen polished; tergites 1-3 bluish black, tergite 4 black on anterior third, red medially, posteriorly two-thirds red, remaining tergites red; laterally the posterior angles and posterior two-thirds of lateral margins of tergites 2-5 narrowly gray pollinose, tergites 2-4 with long pale pile laterally on both pollinose and polished areas.



Wings hyaline, veins yellowish brown.

Legs black except apices of the femora narrowly red, basal two-thirds of tibiae red.

FEMALE differs as follows.—Head black with reddish area above antennae and below ocellar tubercle, occiput thinly gray tomentose and more densely white pollinose over the reddish orbits; thorax with narrow tomentose lines outlining the median longitudinal stripe; hair on scutellum very short and sparse; abdominal segments 1-4 polished black, narrowly red along posterior margins, laterally brownish gray, short bands covering the posterior half of tergites 1-5; femora more broadly red apically, tibia red.

TYPE MATERIAL.—*Holotype male*, VICAM, SONORA, MÉXICO, HIGHWAY 15, KM. 1,900, 23 July 1965 (Charles H. Martin). Allotype female, and paratypes, seven males and five females, same data as for holotype; six males, State of Sonora, Highway 15, Km. 2,007, 23 July 1965 (Charles H. Martin); one male, two females, 10 miles west of Alamosa, Sonora, México, 21 July 1954 (M. Cazier, *et al.*). Holotype and allotype deposited in The California Academy of Sciences. Paratypes deposited in the American Museum of Natural History, and in the collection of the writer.

#### ITOLIA MACULATA Wilcox

(Fig. 1)

Wilcox, J. 1936, Pan-Pac. Entomol., 12: 201-204.

DISTRIBUTION.—México: Sonora: Ten miles south Hermosillo, 18 July 1954 (M. Cazier, *et al.*); north of Hermosillo, Sonora, Highway 15, Km. 2,148, 24 July 1965 (Charles H. Martin).

#### ITOLIA ATRIPES Wilcox

(Fig. 3)

Wilcox, J., 1936, *Ibid.*

DISTRIBUTION.—México: Sonora: Sonoyta, 19 August 1948 (Dorothy W. Martin).

#### SPHAGEUS Loew

*Sphageus* Loew, 1866, Berlin. Ent. Ztschr., 10: 32. Type species: *Sphageus chalcoproctus* Loew, 1866, by monotypy.

*Sphageus*; Back, 1909, Trans. Amer. Ent. Soc., 35: 211.

*Sphageus*; Hull, 1962, United States Natl. Mus. Bull. 224, Pt. 1: 137.

Loew described from Cuba *Sphageus chalcoproctus* which has a habitus similar to *Dizonias* Loew and *Ceraturgus* Wiedemann. The type species has a patch of short stout bristles on the basal half of the fore femora and ventral and dorsal patches on the middle femora. These bristles separate *Sphageus* from those genera which it resembles. Both sexes of *Sphageus* and *Ceraturgus* have similar characteristics, but the sexes of *Dizonias* are dimorphic.

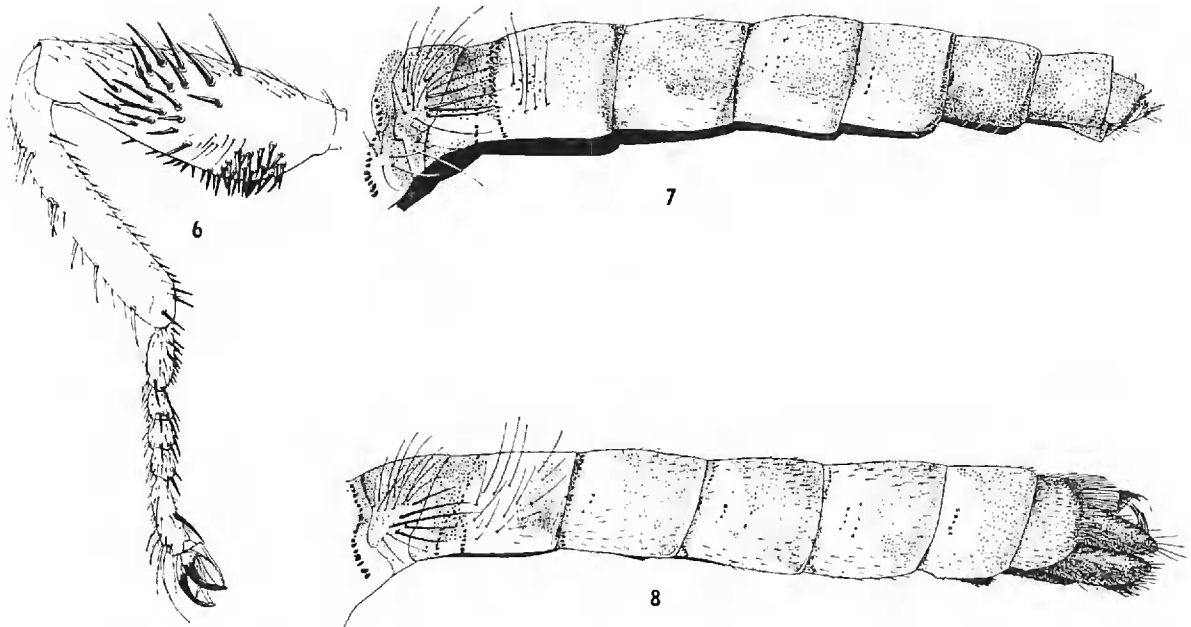


FIG. 6. *Sphageus elotensis*, new species, middle leg. FIG. 7. *Sphageus sandaracus*, new species, abdomen of female. FIG. 8. *Sphageus elotensis*, new species, abdomen of male.

The second and third species of *Sphageus* have a ventral patch of sparse bristles ventrobasad and a second anteroapical on the middle femora (Fig. 6).

### ***Sphageus elotensis* Martin, new species**

(Fig. 8)

*Sphageus elotensis* is a black species with anterior white pollinose bands on tergites 3–6 and a band of white hair shared by the two posterior tergites.

MALE.—Length 23 mm. Head black; face swollen on lower two-thirds, gray tomentose laterally, a black bare stripe medially to the antennae, front reddish brown with some gray, ocellar tubercle brown tomentose, below and beside the ocellar tubercle a black band from eye to eye, thinly dark brown tomentose and densely yellowish brown tomentose at other angles of view, disc of occiput mixed gray and brown tomentose, orbits yellowish brown tomentose to the occipital bristles; strong mystax bristles black medially, and mixed black and white laterally, black facial bristles only on bare stripe and swollen portion; rest of vestiture black except white hairs on lower occiput; antennal segment 1 about 1.5 times longer than segment 2, both black, segment 3 dark red, 2.5 times longer than segments 1 and 2 together, narrow excision on apical third of anterior side, J-shaped pit on posterior side upright with a spine on the hook of the J.

Thorax black, anterior and posterior humeri red; anteriorly brown pollinose, yellow spots below and oblique to humeri, a divided thinly gray pollinose stripe overlying the brown and extending to the transverse suture, laterally the thinly gray pollinose spots overlying the brown, more densely gray laterally and on the metathoracic declivity, bristles above wing joint black; disc of scutellum thinly

brown pollinose, posterior margin yellowish gray pollinose and with six dark bristles; pleura black, reddish brown pollinose, yellow spot above fore coxae and a grayish white to yellow spot below halteres, metapleural bristles black.

Abdomen blackish brown pollinose, white pollinose laterally on posterior two-thirds and a narrow band about medially across tergite 2, tergites 3–6 white pollinose laterally except narrowly brown on anterior and posterior corners, white band across anterior margins narrowed medially, vestiture black, band of white hair extending posterad from posterior margin of tergite 7, white band of hair on tergite 8, short black hair on genitalia, long tufts of white hair laterally, medially a long narrow tuft of black hair from the posterior margin of the hypandrium, genitalia rotate 180°.

Wings reddish brown, center of cells lighter, posterior cell 4 closed and petiolate, anal cell closed in the margin of the wing.

Legs black, vestiture black with some white hair, fore tibiae anteroventrally with dense brown hair, fore femora with a ventral patch of heavy bristles but less dense apicad, middle femora swollen, in a lateral view triangular with a dense patch of bristles on apex of triangle, anteroapicad a patch of bristles stronger and longer than ventral bristles, dorsally white and black recumbent hair, bare posteriorly, hind legs long, stout, vestiture both black and white, basal two-thirds of hind tibiae with recumbent white hair dorsoanteriorly.

FEMALE.—Unknown.

TYPE MATERIAL.—*Holotype male*, 8 MILES SOUTH ELOTA, SINALOA, MÉXICO, 2 July 1963 (F. D. Parker, L. A. Stange). *Paratype, male* 40 miles south of Culiacán, Sinaloa, México, 22 July 1954 (M. Cazier, *et al.*). *Holotype* returned to the University of California at Davis; *paratype* in the American Museum of Natural History.

### ***Sphageus sandaracus* Martin, new species**

(Fig. 7)

*Sphageus sandaracus* is similar to *Sphageus chalcoproctus* Loew. *Sphageus sandaracus* has a black head and a red face, the dorsum of the thorax is red with black stripes and with whitish gray pollinose markings; tergite 5 of the female of *S. sandaracus* is reddish. In *S. chalcoproctus* both head and thorax are black, thorax with golden pollinose markings; tergite 5 of female is with a brilliant metallic purplish luster.

FEMALE.—Length 24 mm. Face dark red, front and occiput black; face yellowish white laterally, medially a bare red stripe to the antennae, from above reddish brown pollen extending to the base of the ocellar tubercle, from an oblique posterior view a dark brown stripe from eye to eye across the ocellar tubercle, front reddish brown tomentose; vestiture red; antennal segment 1 twice as long as segment 2; segment 3 missing.

Thorax red, median and lateral black stripes coalescing at the transverse suture; dorsum thinly white pollinose on red areas, more densely laterally, thinly brownish on black stripes; vestiture red, confined to lateral margins; scutellum red, disc bare, posterior margin yellowish pollinose with four red bristles; pleura black,

metapleura red before halteres, brownish pollinose, white pollinose spot above fore and hind coxae, yellowish spot above middle coxae, pile whitish, bristles on fore coxae white, metapleural bristles red.

Abdomen red, narrow dark red to black stripes across the posterior margins of the tergites; tergite 2 densely white pollinose laterally except incisure, extending thinly and narrowly across middle, cross stripe invisible at some angles, tergites 3-5 white pollinose laterally except incisures, forming rough right triangles with apex near anterior margin, tergite 3 with a trace of white pollen across the anterior border; vestiture sparse, red.

Wings brown, lighter along veins and darker in middle of cells, posterior cell 4 closed, petiolate, anal cell narrowly open on margin.

Legs red, femora black anteriorly; bristle patterns on fore and middle femora similar to the description for *Sphageus elotensis*.

MALE.—Unknown.

TYPE MATERIAL.—*Holotype female*, ELOTA, SINALOA, MÉXICO, HIGHWAY 15, KM. 1,238, 12 July 1965 (Charles H. Martin). Type in the collection of the writer.

#### ACKNOWLEDGMENTS

Specimens were loaned by Mr. A. T. McClay, University of California, Davis, and Dr. C. H. Curran, Emeritus, The American Museum of Natural History. Mrs. Bonnie Hall made the drawings for this paper.

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1949. The genus *Itolia* Wilcox (Diptera: Asilidae). *Ibid.* (1948), 24: 191-193.

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ANNOUNCEMENT OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE.—Required 6 months' public notice is given on the possible use of plenary powers by the International Commission on Zoological Nomenclature in connection with the following names, listed by Case Number (see *Bull. zool. Nomencl.* 23, pt. 1, 30 April 1966):

1733. Validation of TRYPETESINAE Lacordaire, 1833, as the family-group name for *Trypetes* Schoenherr, 1836 (Insecta, Diptera).
1735. Validation of *Podalonia* Fernald, 1927, with designation of type-species (Insecta, Hymenoptera).

Comments should be sent in duplicate, citing case number, to the Secretary, International Commission of Zoological Nomenclature, c/o British Museum (Natural History), Cromwell Road, London, S.W. 7, England. Those received early enough will be published in the *Bulletin of Zoological Nomenclature*.